TCEQ DOCKET NO. 2010-0895-MWD

APPLICATION BY § BEFORE THE
CITY OF ROCKPORT § TEXAS COMMISSION ON
FOR PERMIT NO. WQ0010054001 § ENVIRONMENTAL QUALITY

COASTAL CONSERVATION ASSOCIATION'S REPLY TO RESPONSES TO HEARING REQUEST

The Texas Chapter of the Coastal Conservation Association (CCA Texas) submits this reply to the Responses of the Executive Director (ED), City of Rockport (City), and Office of Public Interest Counsel (OPIC) to the requests for contested case hearing on the renewal of Permit WQ0010054001 (Permit).

CCA Texas has the right to a contested case hearing on the City's renewal application because the City's compliance history raises significant issues regarding the applicant's ability to comply with material terms of the Permit. Even if CCA Texas were not entitled to a contested case hearing, the Commission should exercise its discretion and grant CCA Texas' request because it is undisputed that seagrass has declined in Little Bay, the TCEQ has recently issued permits with much stricter effluent limitations specifically designed to protect seagrasses, and there are disputed fact issues regarding the impact of City discharges on Little Bay.

The City's argument that CCA Texas lacks standing to request a contested case hearing is erroneous. CCA's individual members have standing because the City's discharges affect their aesthetic, recreational, and real property interests, which fall within the zone of interests to be protected by the Texas Water coder and TCEQ rules. CCA Texas respectfully requests that its request for contested case hearing be granted.

I. Introduction

CCA Texas has requested a hearing because of concerns over impacts of the City's wastewater discharges (both permitted and unpermitted) on the seagrass in Little Bay – which all parties acknowledge is declining. Seagrass propagation is a protected use in one of the receiving waters, Little Bay.

TCEQ has required stricter effluent limits to protect seagrass. Specifically to protect seagrass, TCEQ has recently required other wastewater permits to meet much more stringent limits, particularly on important parameters such as Total Nitrogen, Total Phosphorus, and Total Suspended Solids (TSS). Under its proposed permit, the City would continue to have: Carbonaceous Biochemical Oxygen Demand (five day) (CBOD5) limits twice as high as the limits in the TPDES permits recently issues to Aransas County MUD No. 1 and the RR Development; Total Suspended Solids (TSS) limits three times as high as those permits, and no limits on Total Nitrogen or Total Phosphorus:

	City of Rockport To Little Bay, Aransas Bay WQ0010054001	RR Development To Port Bay WQ0014925001	Aransas County MUD No.1 To Aransas Bay WQ0011624001	
	Daily Avg.	Daily Avg.	Daily Avg.	
	mg/l (lbs/day)	mg/l (lbs/day)	mg/l (lbs/day)	
CBOD5	10 (208)	5 (23)	5 (11)	
TSS	15 (313)	5 (23)	5 (11)	
Ammonia Nitrogen	3 (63)	2 (9.2)	2 (4.4)	
Total Phosphorus	Report	1.0 (4.6)	0.5 (1.1)	
Total Nitrogen	Report	6 (28)	8 (18)	
Enterococci bacteria colonies per 100 ml		35	35	

The City can meet these stricter limits. Ironically, the City's own documents show that it could meet the same parameters for CBOD5, TSS and Ammonia Nitrogen that RR Development and Aransas County MUD No. 1 were required to meet. The City's self-reported averages for BOD, TSS, and Ammonia Nitrogen are far below these parameters. *See* Fact Sheet, Ex. B to ED Response, p. 2.

But the City's own documents also show that effluent from its wastewater treatment plant ("WWTP") contains Total Nitrogen at much higher levels than those authorized in the Aransas County MUD No. 1 and RR Development permits – a averaging 29 mg/l in early 2010, with an April 2010 average of 40 mg/l, and a high of 50.6 at the plant weir on March 31, 2010. *See* Exhibit 1, Letter from Urban Engineering to City dated May 12, 2010, pp. 1-2.

At its June 22, 2010 meeting, the City Council unanimously authorized Urban Engineering, Inc. to begin the design phase for modifications to the WWTP for nutrient removal as per the study presented by Urban Engineering at its May 25, 2010 meeting. *See* City Response, p. 3. The approved project will convert all four of the existing aeration basins "with the result that total nitrogen is expected to be discharged with the effluent at a rate of 6 [mg/l]" – not 12 mg/l as the City's Response erroneously states at 3. *See* Exhibit 1, p. 3.

In short, the City is fully capable of meeting the same protective limits for CBOD5, TSS and Ammonia Nitrogen that already are being met by RR Development and Aransas County MUD No. 1. Furthermore, the City, with an interim period for completion of design and modifications proposed by Urban Design, will be able to meet a

6 mg/l Total Nitrogen permit limit. Given the City's capability and initiation of design modification to the WWTP, appropriate permit modifications should be required. This is especially important given the declining condition of seagrass in Little Bay, which requires action so that seagrass propagation can be <u>maintained as required</u>. Perpetuating the current *status quo* – continuing decline of seagrass – does not constitute <u>maintaining</u> the use of seagrass propagation.

There is a fact dispute on City discharges' impact on water quality. The ED says (at p. 9) that a recent study on Little Bay water quality and seagrass "confirms" the ED's initial assessment that discharges from the facility are "not the cause of the [seagrass] decline." The ED and the City (see City Response, pp. 2-3) both overstate the conclusions of the study, to the extent that conclusions are stated in the executive summary and power point presentation at ED Response Attachment F (Dunton & Wilson) (The full report is reportedly scheduled for submission in mid-July.)

The executive summary does not conclude that City wastewater makes no contribution to seagrass decline. Instead, the summary states "there are no obvious biological or chemical mechanisms solely responsible for the decline of seagrasses in Little Bay." Far from stating that there is no wastewater derived nitrogen in the receiving waters, the study says that "the δ^{15} N values of Tule Creek algae and sediments were high and suggest some level of enrichment from wastewater derived nitrogen," and that "the lack of a clear wastewater signal in Tule Creek waters likely reflect an input of nitrogen from non-point sources." The executive summary notes that elevated concentrations of ammonium in sediment porewaters — "significantly higher than reported elsewhere in

seagrass beds along the Texas coast" – are likely fueling benthic macroalgal blooms, as well. In short, seagrass in Little Bay may be subject to multiple stressors – but the study suggests one of those is the City.

Notably, the summary also states, "The dominance of nitrate inputs to Tule Creek is indicative of anthropogenic inputs associated with non-point sources. The levels of [dissolved inorganic nitrogen] increase dramatically in the vicinity of the Rockport Country Club golf course, perhaps from runoff or groundwater inputs." Such an increase is significant because the Permit allows the City to apply wastewater effluent to 200 acres of the golf course at a rate of 2.2 acre-feet per year per acre. See ED Response, Attachment B, pp. 3-4. The golf course extends for a distance along the discharge route; indeed one application area is immediately adjacent to Tule Creek. See Exhibit 2, Map.

The permit prohibits ponding or contamination of ground and surface waters, a prohibits wastewater being applied during rain or when the ground is saturated, and requires holding ponds to have a minimum 2' of freeboard. See ED Response, Attachment C, pp. 23-25. However, the only sampling requirement is annual analysis of a representative soil sample from the root zone of the irrigated site, once a year. *Id.* A reasonable inference from the study finding that dissolved inorganic nitrogen levels "increase dramatically" near the golf course is that unpermitted discharge of effluent is occurring, either from the ponds or irrigation.

At this point, the hearing requestors have not had the opportunity to examine the full Dunton & Wilson study, much less have any discovery on it. However, the study

highlights the <u>disputed fact issues</u> that surround the proposed permit and, in particular, the disputed fact issues on the City's impact on seagrass decline.

Similarly, the City's compliance history raises disputed fact issues concerning the City's contribution to the seagrass decline, as set forth in greater detail in Section II.

II. The City's compliance history precludes application of 30 TAC § 55.201(i).

The ED contends (at pp. 6-9) that the requestors have no right to a contested case hearing because the City's renewal application satisfies all five requirements under 30 TAC § 55.201(i), including the requirement that "the applicant's compliance history for the previous five years raises no issues regarding the applicant's ability to comply with a material term of the permit." The ED is incorrect – the City's compliance history for the last five years does raise issues concerning the City's ability to comply with a material term of the permit.

The Commission must consider the City's compliance history in reviewing this permit renewal application. See TEX. WATER CODE § 26.0281; 30 TAC § 60.3(a)(4)((B). The compliance history attached as the ED Response Attachment E lists 77 separate investigation entries. While many involve reporting failures (including failure to submit the required soil sample analyses, see Attachment E, p. 2), and others involve operational failures, pages 2-3 of the compliance history show two incidents involving unauthorized discharges of sewage. The first entry, for August 11, 2004, cites "Failure to prevent the discharge of wastewater into or adjacent to waters of the state," as does an entry under the January 30, 2008 listing.

The City's TCEQ compliance file contains reports of numerous discharges of raw sewage, often in "undetermined amounts," with many occurring in locations that could reach Little Bay via the storm sewer system. These unauthorized discharges include:

Incident Date	Discharge description				
3-21-10	Approximately 2800 gallons from 5 manhole locations due to				
	power outage at lift station				
2-19-10	Unauthorized discharge from force main crossing Hwy 35 bypass.				
1-14/15-10	Overflows "in undetermined amounts" lasting 1 ½ to 12 ½ hours				
	from 14 open cleanouts allowing storm water to enter				
11-19/20-09	"Overflow of undetermined amounts at two manholes" due to				
	rain and power outages, including power outage at the the				
	WWTP allowing overflow of the wet well to aeration				
3-12-09	Broken force main at Laurel & Gagon discharging an estimated				
	4500 gallons				
2-22-09	Sewer main stoppage discharging 200 gallons from manhole				
12-8-08	Broken force main, 2755 SH 35 Bypass, discharging				
	"undetermined amount of wastewater"				
7-4/5-07	Overflow of 15-16,000 gallons at lift stations, including the				
	Chaparral lift station				
7-4/5-07	Flooding and power outages cause "failures of our lift stations"				
	and "overflow of undetermined amounts" at 19 lift stations.				
7-2-07	Power failure causes overflow of "undetermined amounts" at lift				
	station, "drained to storm drain."				
7-5/6-07	Overflows "with undetermined amounts" at 13 manhole locations,				
2 4 4 2 5	at the WWTP headworks and at two cleanouts.				
2-11-05	Overflow from 2 manholes, approximately 100 gallons				
9-19-04	Broken force main, estimated discharge of 200-300 gallons				
6-25-04	Power failure in lift station causes "failure to prevent the discharge				
- 40 (4) 0 ;	of wastewater into or adjacent to waters of the state."				
5-13/14-04	Overflows "with undetermined amounts" at at least 9 manhole				
	locations (see Notice of Violation, August 11, 2004)				

CCA Texas does not suggest that other compliance violations should not also be considered. But in evaluating the question of the impact of City discharges into Little Bay, overflows of "undetermined amounts" of raw sewage reflect a compliance

issue of great concern with respect to the City's ability to comply with the permit prohibition against unpermitted discharge.

In addition, the Dunton & Wilson material refers to "dramatically increased" nitrogen levels downstream from the golf course, "perhaps from run-off or groundwater inputs." The study did not apparently sample golf course groundwater or run-off, and the permit itself does not require confirmatory sampling to ensure no runoff or groundwater is being contaminated (only an annual soil sample is required). With permit currently allowing the City to apply up to 2.2 acre-feet of effluent per acre per year, the report of "dramatically increased" nitrogen levels below the golf course also raises compliance issues which should be examined in this renewal.

For the foregoing reasons, contrary to the responses of the ED, City and OPIC, CCA Texas has the right to a contested case hearing. Section 55.201(i)(5)(E) of the TCEQ rules cannot be used to foreclose a contested case hearing because it is emphatically not the case that the applicant's compliance history "raises no issues" regarding the applicant's ability to comply with material terms of the permit intended to protect the uses of Little Bay, including seagrass propagation. The ED states (at p. 7) that "no significant comment was received about the Applicant's ability to operate and maintain the wastewater treatment plant." That is not the standard. The standard is the applicant's ability to comply with a material term of the permit. See also CCA's letter to TCEQ dated June 25, 2010 (raising City's compliance history as an issue).

III.

The Commission should exercise its discretion and grant CCA Texas' request for a contested case hearing.

Even if CCA Texas is not entitled to a contested case hearing, the Commission may grant its request in the exercise of its discretion. Section 55.201(i) of the TCEQ rules says that there "is not right to a contested case hearing" on applications that meet its requirements, but it does not preclude the Commission from granting a request for a contested case hearing. Section 26.028(c) of the Water Code provides that the Commission "may approve an application to renew" without a public hearing if certain conditions are met. It does not require it to do so.

In this case, the Commission should exercises its discretion and grant CCA Texas' request for a contested case hearing for the reasons explained in the Introduction. It is undisputed that seagrass in Little Bay is declining. TCEQ has recently issued permits authorizing discharges into Port Bay and Aransas Bay with much stricter effluent limitations specifically designed to protect seagrasses. There is a fact dispute about the impact of the City's permitted and unpermitted discharges on the water quality of Little Bay.

IV. The City is wrong in contending that CCA lacks standing to seek a contested case hearing.

The City argues (at pp. 10-12) that CCA Texas lacks standing to request a contested case hearing because its individual members lack standing, citing *Save Our Springs Alliance, Inc. v. City of Dripping Springs*, 304 S.W.3d 871 (Tex. App. – Austin

2010, pet. filed), for the proposition that a property owner must allege actual or imminent damage to real property to obtain standing. The City has misread *Save Our Springs*.

Protected environmental interests. In that case, the Save Our Springs Alliance (SOS) sought a declaratory judgment that a development agreements between the City and two land developers violated the Texas Constitution and that the public notices relating to those agreements violated the Open Meetings Act. *Id.* at 875-77. In discussing SOS's standing, the Austin court of appeals distinguished federal standing cases cited by SOS on the ground that each case "found the existence of standing where the alleged harm was to environmental, scientific, or recreational interests involved a federal statute protecting those same interests." *Id.* at 881. "SOS Alliance has alleged neither an environmental interest provided for or protected by statute (as is present in the federal cases cited by SOS Alliance) nor a property interest subject to the recreational or environmental harm (as is present in the state cases cited by SOS Alliance)." *Id.* at 882. Therefore, the court concluded, SOS failed to establish standing. *Id.*

In this case, in contrast, CCA Texas has alleged that the individual members have interests protected by statute. Their aesthetic and recreational interests clearly fall within the zone of interests protected by the Texas Water Code and Commission rules. Under the Texas Surface Water Quality Standards, Little Bay is designated for high aquatic life use and Aransas Bay is designated for exceptional aquatic life use, oyster waters, and contact recreation. TCEQ rules provide that "basic uses, such as ... seagrass propagation ... will be maintained and protected for all water in the state in which these uses can be achieved." 28 Tex. Admin. Code § 307.7(b)(5). CCA Texas has alleged that the City's

discharges are an imminent threat to its individual members legally protected interests in the health of Little Bay and Aransas Bay.

Waterfront property ownership. Further, if Save Our Springs did require a real property interest, then CCA member Ed Rainwater's ownership of waterfront property on Little Bay meets this requirement. See Save Our Springs, 304 S.W.3d at 879, discussing Lake Medina Conservation Soc'y v. Tex. Natural Resource Conservation Comm'n, 980 S.W.2d 511, 515-16 (Tex. App. – Austin 1998, pet. denied) (society members owning waterfront property had standing in own right), and Tex. Rivers Protection Ass'n v. Tex. Natural Resource Conservation Comm'n, 910 S.W.2d 147 (Tex. App. – Austin 1995, writ denied) (member's riparian ownership established standing in own right).

Mr. Rainwater's home is approximately 4000 feet from the point at which the City's discharges enter Little Bay, and is very near to the connection between Little Bay and Aransas Bay. *See* Exhibit 3, Map. Mr. Rainwater's ownership interest in this real property, and the enjoyment of the aesthetic and recreational opportunities made available by that ownership interest, give him standing in his own right.

V. Conclusion

CCA Texas respectfully request that the Commission grant its request for a contested case hearing. CCA Texas has a right to a contested case hearing on the City's renewal application, but, even if it did not, the Commission should grant CCA Texas' request where there is undisputed degradation of receiving water quality. CCA Texas has

standing to request a contested case hearing because its individual members have legally protected aesthetic and recreational interests in and real property on Little Bay.

Respectfully submitted,

Robin A. Melvin
State Bar No. 13929590
Helen Currie Foster
State Bar No. 24008379
GRAVES, DOUGHERTY, HEARON & MOODY, A PROFESSIONAL CORPORATION
401 Congress Avenue, Suite 2200
Austin, TX 78767-0098
(512) 480-5600 Telephone
(512) 580-5881 Telecopier

By Krben A. Melvin

ATTORNEYS FOR THE TEXAS CHAPTER OF THE COASTAL CONSERVATION ASSOCIATION

CERTIFICATE OF SERVICE

I hereby certify that on the 30th day of July, 2010, a true and correct copy of the foregoing Coastal Conservation Association's Reply to Responses To Hearing Request was mailed to the persons on the attached mailing list.

Robin A. Melvin

Mailing List Coastal Conservation Association of Texas TCEQ Docket No. 2010-0895-MWD

Billy W. Dick City of Rockport 622 East Market Street Rockport, Texas 78382 361-790-1160 361-729-7672 fax

Michael T. Parr II, Staff Attorney
Texas Commission on
Environmental Quality
Environmental Law Division, MC-173
P.O. Box 13087
Austin, Texas 78711-3087
239-0600
239-0606 fax

Bijaya Chalise, Technical Staff Texas Commission on Environmental Quality Water Quality Division, MC-148 P.O. Box 13087 Austin, Texas 78711-3087 239-4545 239-4430 fax

Blas Coy
Texas Commission on
Environmental Quality
Public Interest Counsel, MC-103
P.O. Box 13087
Austin, Texas 78711-3087
239-6363
239-6377 fax

Bridget Bohac
Texas Commission on
Environmental Quality
Office of Public Assistance, MC-108
P.O. Box 13087
Austin, Texas 78711-3087
239-4000
239-4007 fax

Kyle Lucas
Texas Commission on
Environmental Quality
ADR Program, MC-222
P.O. Box 13087
Austin, Texas 78711-3087
239-4010
239-4015 fax

La Donna Castañuela
Office of the Chief Clerk, MC-105
12100 Park 35 Circle
Building F, 1st Floor
Austin, Texas 78711-3087
239-3300
239-3311 fax

REQUESTERS:

Elayne Arne P.O. Box 694 Rockport, Texas 78381-0694

Charles Belaire Belaire Environmental, Inc. P.O. Box 741 Rockport, Texas 78381-0741

James B. Blackburn, Jr. Blackburn Carter, P.C. 4709 Austin Street Houston, Texas 77004-5004

Monica Hudgins 1915 Mallard Drive Rockport, Texas 78382-6355

Don Jackson 166 Front Street Rockport, Texas 78382-7800 Raymond Kirkwood P.O. Box 1194 Rockport, Texas 78381-1194

Fred Lanoue 1751 State Highway 188 Aransas Pass, Texas 78336-6543

Linda Lanoue 1751 State Highway 188 Aransas Pass, Texas 78336-6543

Lynn Lee 109 Olympic Drive Rockport, Texas 78382-6811

Emily Rogers
Bickerstaff heath Delgado Acosta LLP
3711 S. MoPac Expwy
Building One, Suite 300
Austin, Texas 78746

Leslie M. Moor, Jr. 4 Bimini Drive Rockport, Texas 78382-3709

Diane Moore 7605 E. 229th Street Peculiar, MO 64078-9069

Ronald Moore 1924 W. Terrace Blvd. Rockport, Texas 78382-6252

Tommy Moore P.O. Box 2153 Rockport, Texas 78381-2153 Ronald B. Outen and Tommy Moore 911 Navigation Circle Rockport, Texas 78382-2781

John M. Nelson 1819 Bay Shore Drive Rockport, Texas 78382-3755

Ronald B. Outen 31 Flamingo Road Rockport, Texas 78382-3717

Donna Pazera 508 Lakewood Street Rockport, Texas 78382-6958

Ed Rainwater 61 Blue Heron Drive Rockport, Texas 78382-3711

Diana Rushing P.O. Box 582 Fulton, Texas 78358-0582

Sandy Swanson 112 Lee Circle Rockport, Texas 78382-6983

Sandy Swanson Key Allegro R/E 1798 Bay Short Drive Rockport, Texas 78382-3410

Frances Symank 462 Augusta Drive Rockport, Texas 78382-6945



Job No.: 1560.A9.02

May 12, 2009

TRANSMITTED VIA EMAIL AND ORIGINAL MAILED

Mr. Billy Dick City of Rockport P.O. Box 1059 Rockport, Texas 78382

Subject: Rockport WWTP Nutrient Removal Study

City of Rockport

Dear Billy:

(361)854-3101

We have provided additional investigation into the previously proposed methods for reducing the nutrients, specifically nitrogen, which are being discharged from the Rockport Wastewater Treatment Plant. The previous report provided a short term alternative to work in the existing aerations basins and a long term alternative to construct a separate treatment basin. This additional report provides more detailed recommendations to achieve a nutrient removal goal and it is attached.

Since the previous report the City has been conducting testing of the effluent for nutrients and a summary of the results at the discharge weir are providing in the following table. The nitrate value is used in the table for the total nitrogen (TN) since the NH3 (<0.2) and Nitrite (<0.05) values are very low or less than the detectible limits in most cases.

Effluent Weir Nitrogen Testing Results

Dat (Year 2		Flow (MGD)	TN at Plant Weir (mg/l)	Duplicate (mg/l)	Aeration Basins In Service
February	10	1.59	34.70		4
	17	2.36	2.01	1.89	4 .
	24	1.56	19.50	20.30	4
March	3	1.10	24.60		4
	10	2.40	19.00		4
	17	1.97	18.20		4
	24	1.80	17.30		4
	31	1.40	50.60		3
April	7	1.17	45.80		3
	14	1.75	45.60		3
	21	1.29	33.30	34.10	3
	29	1.44	36.00		3

FAX (361)854-6001

Mr. Billy Dick May 12, 2010 Page 2

As you can see from the table the TN results vary. Averages are presented in the following:

Average of all results:

29 mg/l TN

Average drop low/high:

30 mg/l TN

Average of April, 2010:

40 mg/I TN

There are two alternatives being considered to provide additional nutrient removal at the Rockport WWTP. Alternative 1 will be an interim step to expedite the removal process but will require de-rating of the plant treatment capacity. This alternative can be accomplished in two sub-options, one is more implementable than the other and they each have different results. Alternative 1A involves modifications to just one half of the existing aeration basins and Alternative 1B includes the modifications of all of the aeration basins. Alternative 2 provides a permanent separate treatment basin and leaves the existing aeration basins alone. Alternative 2 can be done whether or not Alternative 1 is done as an interim step. These alternatives are discussed further in the following:

Alternative 1A - Interim Nutrient Removal - Convert 2 Existing Aeration Basins

Action: Convert to Anoxic Tanks the first tank in each of Aeration Basins No. 1 and No. 2.

Estimate of Probable Cost:

Construction Cost: \$ 100,000 Engineering: \$ 15,000

Total

\$ 115,000

As noted in the attached study the two existing south aeration basins (Aeration Basins No. 1 and No. 2) can easily be converted to anoxic tanks. Aeration Basins No. 3 and No. 4 each is one long tank and it is more difficult/expensive to add an anoxic zone to these tanks. Converting just Basins 1 and 2 provides interim nutrient removal for the following flow conditions:

Total Design Flow = 2.5 MGD: Additional Treatment of 50% of flow Existing Actual Flow = 1.6 MGD: Additional Treatment of 67% of flow

(with either Basin No. 3 or 4 still left out of service as

is presently done).

The total nitrogen (TN) expected to be discharged from Basins No. 1 and No. 2 is 6 mg/l but, when combined with the un-denitrified flow from Basins No. 3 and 4, the TN amounts to a total combined discharge of 14 mg/l to 28 mg/l. The amount depends on the range of the existing TN being discharged (see table above) and whether three or four aeration basins are in service. A table of these ranges and results are provided at the end of this report.

Converting the two existing basins to anoxic tanks will reduce the plant treatment capacity, based on the existing design loading, from 2.5 MGD to approx. 2.24 MGD (10% reduction of capacity).

One proposed change to the attached study is that, instead of providing submersible pumps for the recycle flow, we suggest using 14" dia. airlift pumps. They will be more economical to provide the pumping required, will help utilize the excess air and will not require temporary electrical connection.

The proposed mixers to be added to keep the mixed liquor in suspension in the anoxic tanks will be sized to be used for the future full size Anoxic Tank (Alternative 2).

Costs appear to be more than originally estimated. Mixers that could be used for both installations are approximately \$30,000 each, installed. Removal and storage of the existing fine bubble air header system from the proposed anoxic tanks is recommended since they will have to be turned off, keeps them from filling up with solids. Adding the mixers and airlift pumps and removing/storing the existing aeration system from the proposed anoxic tanks will likely be approx. \$100,000. As noted above, the mixer cost will not be lost as they will be moved to the Alternative 2 anoxic tank.

Alternative 1B - Interim Nutrient Removal - Convert All 4 Existing Aeration Basins

Action: Convert to Anoxic Tanks the first tank in each of Aeration Basins No. 1 and No. 2 and the first portion of Aeration Basins No. 3 and 4

Estimate of Probable Cost:

Construction Cost: \$ 250,000 Engineering: \$ 37,500 Total \$ 287,500

As discussed in Alternative 1A above, Aeration Basins No. 1 and No. 2 can easily be converted to anoxic tanks. As noted in the attached study, Aeration Basins No. 3 and No. 4 can be converted to provide an anoxic zone by adding a temporary partition wall across the south end. Converting all four aeration basins provides interim nutrient removal for 100% of the flow conditions.

The total nitrogen (TN) expected to be discharged with the effluent is 6 mg/l. A table of results and percent reductions for this alternative is provided at the end of this report.

Converting all four existing basins to provide an anoxic zone will reduce the plant capacity, based on the existing design loading, from 2.5 MGD to approx. 2.0 MGD (20% reduction of capacity).

One proposed change to the attached study is that, instead of providing submersible pumps for the recycle flow, we suggest using 14" dia. airlift pumps. They will be more economical to provide the pumping required, will help utilize the excess air and will not require temporary electrical connection.

The proposed mixers to be added to keep the mixed liquor in suspension in the anoxic tanks will be sized to be used for the future full size Anoxic Tank (Alternative No. 2).

The construction cost to convert all four basins is estimated to be \$250,000. This includes removing and storing the existing fine bubble aeration system from the proposed anoxic zones. Mixers that could be used for both interim and final installations are approximately \$30,000 each, installed. As noted above, the mixer cost will not be lost as they will be moved to the Alternative 2 anoxic tank.

Alternative 2 - Permanent Nutrient Removal Basin

Action: Construct a new separate anoxic tank (and, if interim steps taken, convert the existing aeration basins back to full aeration).

Estimate of Probable Cost:

Construction Cost: \$ 785,000 Engineering: \$ 150,000 Total \$ 900,000

Ψ 000,000

This alternative along with basin sizing and a layout is discussed in detail in the attached study. Construction of a new separate anoxic tank and restoring the original aeration basin capacity will return the plant rated average flow capacity back to the present 2.5 MGD.

The total nitrogen (TN) expected to be discharged in the effluent with the Alternative 2 improvements is 6 mg/l or less. A table of results and percent reductions for all Alternatives is provided in the following. The existing effluent TN is from the table on Page 1 and the percent reduction is the difference between present TN discharged to expected discharge with proposed improvements.

Expected Total Nitrogen Reductions

EXISTING EFFL TN	ALT. 1A - 4 AER BASINS		ALT. 1A - 3 AER BASINS		ALT. 1B OR ALT. 2	
	EFFL TN	% REDUCTION	EFFL TN	% REDUCTION	EFFL TN	% REDUCTION
(mg/l)	(mg/l)		(mg/l)		(mg/l)	
30	18	40%	14	54%	6	80%
40	23	43%	17	57%	6	85% `
50	28	44%	21	60%	6	88%

A summary of expected results and costs are provided for all alternatives in the following table.

Summary of Costs and Expected Results

ALTERNATIVE	PROJECT COST	EXPECTED EFFLUENT TN	PERCENT TN REDUCTION
1A	\$115,000	14 to 28 mg/l	40 to 60%
1B	\$287,500	6 mg/l	80 to 88%
2	\$900,000	6 mg/l	80 to 88%

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A timeline has been developed for Alternative 1 and Alternative 2 from initiation of design through construction completion and it is attached. Alternative 1A and 1B bid documents can be developed fairly quickly and the four month construction time is to allow manufacture and delivery of the mixers. Alternative 2 is alittle more complicated in design and requires a longer construction time. Alternative 2 has an approximately nine month longer timeline than Alternative 1, from start to finish.

Please review the attached study and let us know if any comments or questions. We will be happy to meet with staff at your convenience to discuss the report and information provided.

Sincerely,

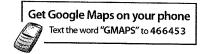
URBAN ENGINEERING

Mark Maroney, P.E.

MM/sdk Enclosure



Google maps Address 61 Blue Heron Dr Rockport, TX 78382



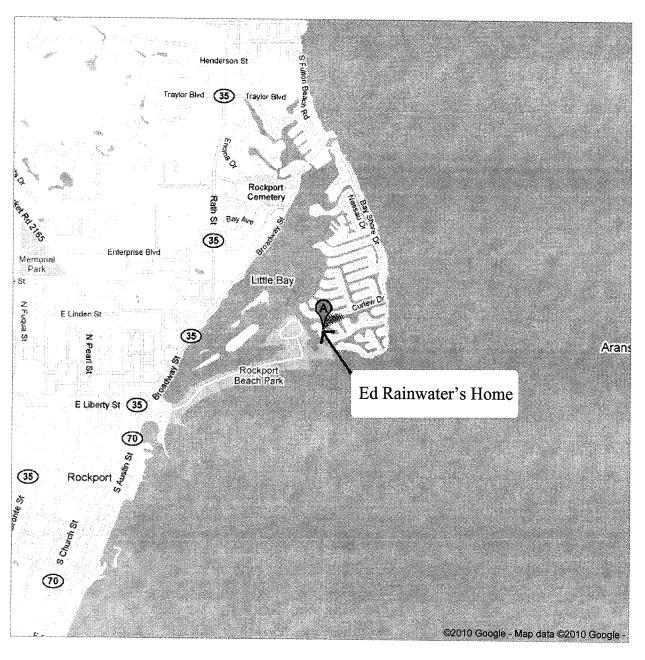


Exhibit 3